LIFE SCIENCE AREAS OF NATURAL AND SCIENTIFIC INTEREST IN SITE DISTRICT 6-2

A Review and Assessment of Significant
Natural Areas in Site District 6-2

September 1984

Ontario

Ministry of
Natural
Resources

OFER 8407

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September 1984

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Ministry of Natural Resources
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For convenience, this report may be referred to as OFER # 8407. It is one of a number of Open File Ecological Reports comprised of reconnaissance surveys and inventories of ecological areas in Ontario.

Additional copies of this report are obtainable only from the Ontario Ministry of Natural Resources through the following locations: Central Region, 10760 Yonge Street, Richmond Hill, Ontario L4C 3C9, Telephone (416) 884-9202; Southwestern Region, at the nearest District Office of the Ministry of Natural Resources.

Reference copies of this report are available in the above offices, and the Natural Resources Library, 4th Floor Whitney Block, Room 4540, 99 Wellesley Street West, Toronto, Ontario M6A 1W3. Copies have been sent to university libraries in Southern Ontario.

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PREFACE

In 1977, the Parks and Recreational Areas Program of the Ontario Ministry of Natural Resources, with special funding approved by Management Board of Cabinet, initiated a provincial survey of natural areas in connection with park system planning. A parallel initiative focused on the identification of geological sites representative of Ontario's earth science diversity. The mandate for these surveys stems from the protection objective of the Ontario Provincial Parks Policy (1978), which is "to protect provincially significant elements of the natural and cultural landscapes of Ontario".

The overall objective of the natural areas survey is to identify a series of ecological areas that comprise the spectrum of natural landscapes, environments and biotic communities in Ontario. This objective issues from a Cabinet endorsed guideline of the 1978 parks policy which recognizes the role of provincial parks in protecting "a system of features representative of Ontario's life science history and diversity". With this aim, technical guidelines help to direct the selection, documentation and evaluation of natural areas throughout the site regions and site districts of the province.

Between 1980 and 1982, evaluations of remnant natural areas were undertaken in the site districts within the Central and Southwestern Regions of the Ministry. Through these assessments, the finest natural areas were chosen to complement natural features already represented within a series of Nature Reserves proposed through an earlier review of the provincial parks and park reserves (Lindsay and Hanna, 1980). In addition, natural areas identified through this survey complement the Candidate Nature Reserves already proposed for the Niagara Escarpment Planning Area (Parks Planning Branch, 1976).

The present report was issued as a draft in 1980 under the title "An Identification and Evaluation of Life Science Candidate Nature Reserves in Site District 6-2". Now in the final edition, it is one of a series of such reports which have been completed to date and are available as "Open File Ecological Reports". The findings of these reports have provided the basis for many of the "Recommended Provincial Parks" announced by the Minister in June 1983, and the "Areas of Natural and Scientific Interest" designated in the District Land Use Guidelines also released at that time.

Although evolution of the land use planning process since 1981 has produced new terminology incorporating natural areas, this nomenclature is not used in this report. Rather, natural areas are referred to as either Candidate Nature Reserves or as Significant Sites. This is distinct from the new terminology, as used in the District Land Use Guidelines (OMNR, 1983), which groups natural areas and geological sites as Areas of Natural and Scientific Interest (ANSI s).

According to the District Land Use Guidelines, ANSI s may vary in level of significance. The most significant of these, those referred to as Candidate Nature Reserves in this report, make the greatest contribution to the Ministry's protection objective and are listed in the District Land

Use Guidelines. ANSI s which contribute to a lesser degree to the provincial protection objective are referred to as Significant Sites in this report and are considered to be at least regionally significant. The policy statement for Areas of Natural and Scientific Interest is appended.

Site district evaluations in the Central and Southwestern Regions of the Ministry were carried out by three biologists -- K. M. Lindsay, R. Hanna and R. Klinkenberg. Lindsay coordinated and directed the work, and evaluated Site Districts 6-5, 6-7 and 7-2. Hanna examined Site Districts 6-2, 6-6, 6-8, 6-13, 7-4 and 7-6; Klinkenberg examined Site Districts 7-1 and 6-1. While all three biologists shared common objectives and collaborated in developing evaluation techniques, each undertook field work and evaluation using methods appropriate to their respective site districts.

Each site district report includes an analysis and discussion of the natural features and natural areas of the site district, a discussion of the methodology, recommendations for further work and possible methods of natural areas protection. Check-sheets for Candidate Nature Reserves are appended, as are brief descriptions of other natural areas in the site district.

The information collected during the site district assessments forms the foundation of a provincial natural areas data base. This data base is being updated as new information is obtained. It is an important component of the planning process at district, regional and provincial levels of the Ministry. Readers are invited to add to the data base either by contributing to studies conducted by the Ministry, or through information contributed to other groups seeking to protect natural areas.

Although site district assessments were designed to identify those natural areas which contribute mainly to the protection objective of the Ministry, this information should prove useful to regional and local governments, conservation authorities and other organizations involved with the identification and protection of significant natural areas. Protection of natural areas may be achieved in several ways, including the purchase of sites by outside agencies. Where natural areas designated as ANSI s occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur provide for the protection of identified values. On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of the significant features on their properties and seek the owners' cooperation in protecting such features.

ACKNOWLEDGEMENTS

Many people contributed to the preparation of the site district reports. H. J. Featherston, H. Pronk, J. Griffin and G. Rodgers (Parks and Recreational Areas Section, Central Region, Ontario Ministry of Natural Resources) played a major role in the administration of this project, providing continual and much appreciated logistic and technical support. G. Murphy and E. Martelle (Parks and Recreational Areas Section, Southwestern Region) also contributed substantially to this project. Technical direction for the project came from an informal committee composed of the Parks Coordinators of both regions, H. J. Featherston, G. Murphy and E. Martelle; and Regional Park Planners, G. Rodgers, W. McNab and I. Seddon; and T. J. Beechey, (Life Science Coordinator, Parks and Recreational Areas Branch, Queen's Park). Discussions on technical matters with T. J. Beechey, W. McNab and G. Rodgers proved especially valuable. This report was prepared under contract to J. E. Hanna Associates Inc.; the Ontario Ministry of Natural Resources, however, undertook all aspects associated with report production.

Throughout the course of this project K. Lindsay provided regular direction, encouragement and advice. P. Terpstra's assistance with background research, data analysis, map preparation, field work and report editing has been invaluable. L. Sajnovic supervised report typing with proficiency and looked after many other deatils.

E. Hanna (J. E. Hanna Associates Inc.) discussed freely the method of site selection, provided information on specific sites and commented on drafts of this report. His ideas and support are appreciated and are reflected in the context of this report.

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1. Candidate Nature Reserves and Significant Sites in Site District 6-2

SUMMARY

Spanning a narrow band along the eastern shore of Lake Huron, from the base of the Bruce Peninsula south to Grand Bend, Site District 6-2 includes a progression of wave cut terraces formed by glacial Lakes Algonquin and Nipissing with boulders, gravel bars, beach ridges, sand dunes and shorecliffs rising 15 to 30 m above the current lake level. A portion of the bordering bevelled clay plain above also falls within the site district. The majority of the site district is intensively used for agricultural activities such as mixed dairying and some market farms. Intensive recreational activities occur along the shoreline and well known resort towns such as Sauble Beach, Southampton, Port Elgin, Kincardine, Bruce Beach, Goderich and Bayfield are within the site district. A major nuclear powered generating station is located at Douglas Point.

An overview of the physiographic regions and component vegetation-landform features in Site District 6-2 indicated that the only features which currently remain in a relatively undisturbed or natural state are: shoreline cliffs, beach ridges and sand dunes, upland woodlots, river valley systems and wetlands. There are no provincial parks or park reserves with nature reserve potential. The following seven candidate nature reserves were selected to represent the major vegetation-landform features of the site district. These sites are limited by the quality of the remnant landscape.

Shoreline Cliffs	18 Mile Shorecliff (41A/4 412730)
Shoreline Beach Ridges and Sand Dunes	Scott Point (41A/5 570115) Sauble Falls North (41A/11 709480)
Uplands	Bayfield North (40P/12 440270)
River Valley Systems	Bayfield River (40P/12 480230)
Wetlands	Greenock Swamp (41A/3 700890) Glammis Bog (41A/3 690975)

All seven candidate nature reserves are recommended for protection. Five of the seven are highlighted because of their outstanding contribution: 18 Mile Shorecliff, Scott Points, Bayfield North, Bayfield River and Greenock Swamp.

1. INTRODUCTION

Site District 6-2, a part of Site Region 6, spans the eastern Lake Huron shoreline from the base of the Bruce Peninsula north of Sauble Falls southward to just north of Grand Bend (Figure 1). It includes several major rivers, namely the Saugeen, Bayfield, Maitland, Penetangore and Sauble Rivers, which discharge into Lake Huron.

A site region is defined as an area of land within which the responses of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Site Region 6 is described as a gently to rolling terrain of ice-laid materials deeply covering the bedrock over 80% of the area. Local plains of lacustrine deposits with little relief and limestone plains shallowly overlain by drift are restricted to several areas. Normal mesic, normal dry and hot dry sites (as defined by Hills, 1959) are characterized by sugar maple/beech/hemlock, sugar maple/oak/ash and oak/ash respectively. Hemlock, yellow birch, spruce and white cedar occur on wet sites. Each site region is further subdivided according to characteristic physiographic zones which set apart fairly large areas; these Hills called site districts. Site District 6-2 is described as a plain of lake-laid clay and silt with local areas of till and sand.

The categorizations and boundaries proposed by Hills do not coincide precisely with those of other authors. In particular Chapman and Putnam (1973) recognize five distinct physiographic regions (refer to Glossary), parts of which fall within Site District 6-2. The majority of the site district is contained within the Huron Slope, a physiographic region sloping gently upward, rising 50 to 100 m from the shorecliff of post-glacial Lake Algonquin to that of Lake Warren. This clay plain, bevelled in some localities, is modified by a narrow strip of sand running below and parallel to the twin beaches of glacial Lake Warren. A second physiographic region within the site district, the Huron Fringe, is typified by boulder shoreline gravel bars, beach ridges, sand dunes, and shorecliffs formed by glacial Lakes Algonquin and Nipissing. Less important are the Saugeen Clay Plain, Horseshoe Moraines and Arran Drumlin Field due to their smaller areal coverage. In Site District 6-2, a knob and ridge topography interspersed with broad swampy valley floors constitutes the Horseshoe Moraines

Table 1 presents an analysis of the landscape of Site District 6-2 and its remaining natural features. The physiographic regions that lie within the site district are listed in order of importance. For each physiographic region, component landforms are given, based on Chapman and Putnam, 1972. As well, the percentage and types of natural areas remaining is estimated based on a review of the 1:50,000 topographic maps covering the site district.

Following this overview of the site district,between 5 and 20 per cent of the vegetation-landform features of the site district were found to be in a relatively natural and undisturbed state. The most common remnant natural features in the study area are shoreline cliffs, beach ridges and sand dunes, river valley systems, upland woodlots and wetlands. No parks or park reserves with nature reserve potential are available to represent these features. Consequently, a nature reserve site selection program was undertaken to identify sites which could provide adequate representation of the dominant vegetation-landform features. The methodology of the natural features overview, identification of features not represented by Parks, site selection procedure and a brief discussion of the results and recommended sites follows.

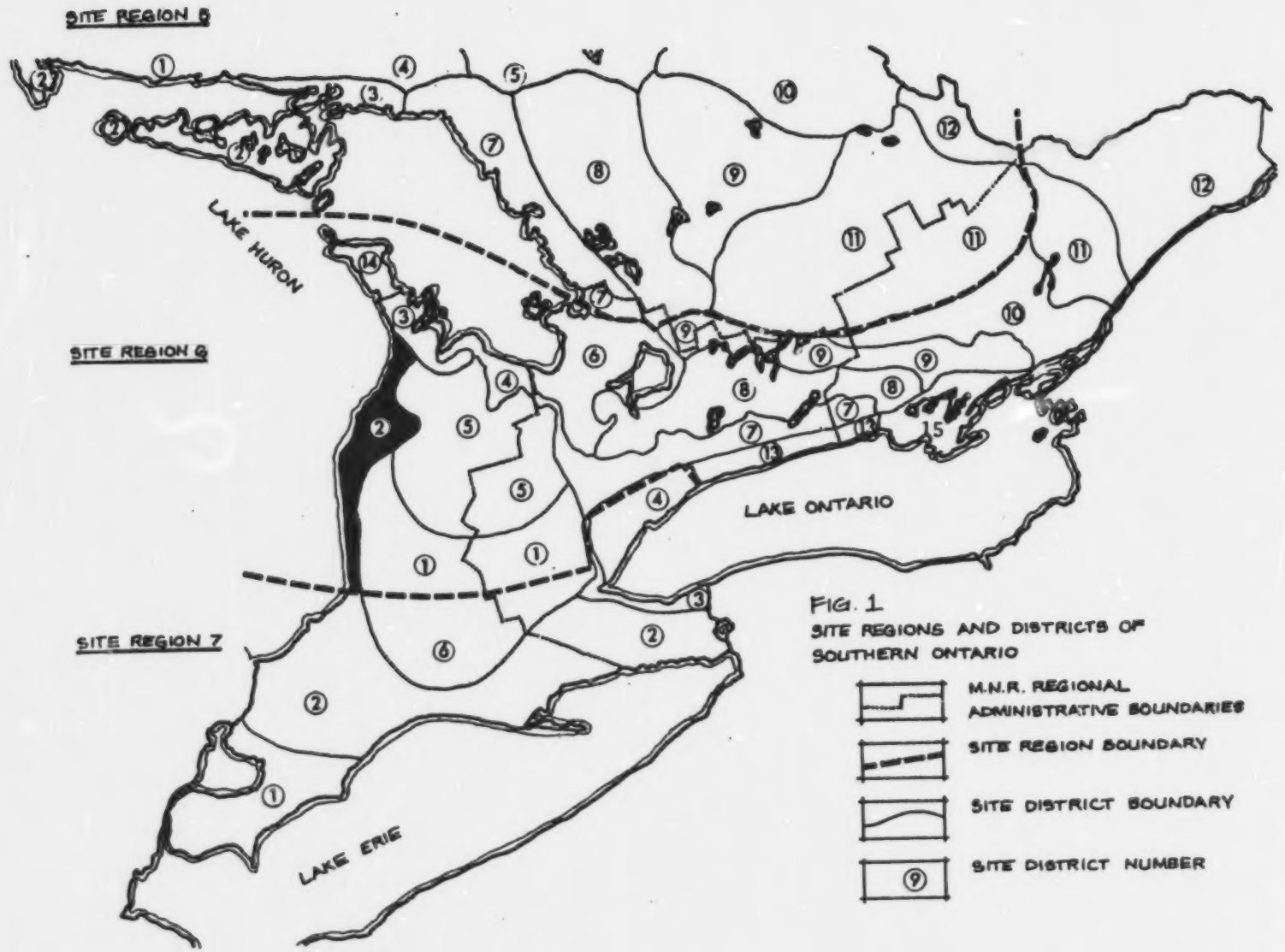

FIG. 1
SITE REGIONS AND DISTRICTS OF SOUTHERN ONTARIO

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-2

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Huron Slope (also in 6-1, 7-2, 7-6)	75	bevelled till plain	40	-5% -mainly farmed -some river valley systems and woodlots	-	-	-	-river valley systems -upland woodlots	-Bayfield River (40P/12 480230) -Bayfield North (40P/12 440270)
		till plain	35	-20% -scattered, small woodlots	-	-	-	-upland woodlots	-
		sand plain	15	-several small woodlots; one large woodlot north of Bayfield -steep river valleys	-	-	-	-upland woodlots -river valley systems	-Bayfield North (40P/12 440270) -Bayfield River (40P/12 480230)
		till moraine	8	-mainly farm land -river valley system	-	-	-	-river valley systems	Bayfield River (40P/12 480230)
		spillway	2	-farmed	-	-	-	-	-
Huron Fringe (also in 6-3, 7-2)	15	sand plain with beaches, dunes and shorecliffs	98	-5% -shorecliffs mainly cottages except few locations -dunes mainly Indian Reserve and resort except near Sauble Falls -beach ridges mainly cottage resort except Lorne Beach, Point Clark, Scott Point	-	-	-	-shorecliffs -beach ridges -dunes	-18 Mile South Shorecliff (41A/4 412730) -Scott Point (41A/5 570115) -Sauble Falls North (41A/11 790480)

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-2

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Huron Fringe cont'd	15	muck	1	-Bruce Generating Station	-	-	-	-	-
		limestone plain	1	-Chief's Point Indian Reserve	-	-	-	-shoreline wetland	-
Saugeen Clay Plain (also in 6-5)	4	clay	60	-mainly farmed -few tiny woodlots	-	-	-	-upland woodlots	-
		sand plain	40	-mainly farmed -few swamps	-	-	-	-oxbow swamp	-
Horseshoe Moraines (also in 6-1, 6-5 7-2 and 7-6)	4	muck	50	-Greenock Swamp	-	-	-	-swamp	Greenock Swamp (41A/3 700890)
		drumlinized till plain	20	-farmed	-	-	-	-	-
		till moraine	20	-farmed	-	-	-	-	-
		spillway	4	-farmed	-	-	-	-	-
		sand plain	4	-few wetlands	-	-	-	-swamp	-

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-2

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVE; SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Horseshoe Moraines cont'd	4	kame moraine	2	-80% wetland and kame knobs	-	-	-	-bog-kame complex	Glammis Bog (41A/3 690975)
Arran Drumlin Field (also in 6-3, 6-5)	2	drumlinized till plain	100	-30% -lowlands between drumlins	-	-	-	-lowlands between drumlin	-

2. METHODOLOGY

The following section outlines the four steps undertaken during the natural area overview and site selection procedure.

(i) Natural Features Analysis

The Protection Objective of Ontario's Provincial Parks Policy is "to protect provincially significant elements of the natural and cultural landscape of Ontario". Following an assessment by site district of the life science features with nature reserve potential in the Parks System, it was necessary to determine which features were not represented by Parks and which features would need to be included to meet the protection objective of this policy.

Site districts as defined by Hills (1959), served as the sole basis for identifying and selecting vegetation-landform features which needed to be represented in the Parks System to preserve the diversity of landscape types remaining. However, the physiographic regions proposed by Chapman and Putnam were also considered primarily at the overview state, (step i). By segregating the site district in this way, the identification of the full spectrum of features to be represented was facilitated. Throughout the text of this report, reference is made to these physiographic regions, however, site selection was based entirely on the analysis of the dominant vegetation-landform features of the site district irrespective of their association with the physiographic regions. Reference to these physiographic regions is intended simply to allow the reader to orient and compare the sites selected according to the system proposed by Chapman and Putnam.

Topographic (NTS 1:50,000) and physiographic (Chapman and Putnam, 1972 1:253,440) maps were used to estimate the percentage of Site District 6-2 within each physiographic region. Within each section of the physiographic region, the areal frequency of the various vegetation-landform features were recorded. For each vegetation-landform feature, estimates of the percentage of the area remaining in a natural and undisturbed state were made and tabulated.

Features represented by Parks and those missing from the system were listed. Sections (ii) to (iv) of the Methodology outline the steps followed to document and select the best available examples of the dominant vegetation-landform features within the study area. Candidate nature reserves were chosen to represent the missing features identified through the natural features analysis. Table 2 tabulates the time spent on each step.

(ii) Review of Background Information

Existing information on file at the Ministry of Natural Resources, Central Region, Parks and Recreation Section, was compiled according to physiographic regions and landforms, by P. Terpstra. This information is presented in Appendix B. Major sources of information for this site district included Environmentally Sensitive Areas (ESA) reports and Ministry of Natural Resources' Sensitive Areas Files. Environmental Data Cards, International Biological Program (IBP) survey sheets and internal reports provided additional information.

TABLE 2. TIME ALLOCATION FOR NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE FOR SITE DISTRICT 6-2

STEP	DAYS
1. Natural Features Analysis (overview of natural landscape of Site District 6-2 and identification of life science features not represented by Parks).	4
2. Review of Background Information (review of topographic maps, physiographic maps, airphotos and data; selection of sites for field checking).	4½
3. Field Reconnaissance (by automobile and foot).	3½
4. Site Evaluation (final review, comparison and evaluation of significant sites for candidate nature reserves; Environmental Data Card preparation and mapping).	5

Following the review of topographic and physiographic maps and the background data, representative life science sites with nature reserve potential were selected for detailed airphoto analysis. Where no information was available, sites were selected strictly from maps. The number of potential sites was reduced through airphoto analysis and a list was prepared for field investigation.

The following five criteria were the basis for all phases of site selection and evaluation. Sites illustrating similar features were compared in terms of representation, diversity, condition, ecological considerations and special features.

(a) Representation - Representation of the remaining natural features of the site district was of primary importance. The dominant vegetation-landform features of the site district were given special emphasis.

(b) Diversity - Diversity was appraised in terms of the number and range of vegetation-landform features or habitats found within a site. The representation value of a site usually increases in proportion to the diversity of habitats contained within the site.

(c) Condition - The degree of past disturbance to the main feature(s) of the site was assessed. Logging, grazing, fire, drainage, flooding, mining, housing developments, transportation and utility corridors and recreation were some of the impacts that were considered. Because all of southern Ontario has been effected by human disturbance to varying degrees, none of the sites selected are pristine.

(d) Ecological Considerations - Ecological considerations, such as size, shape, buffering from adjacent land use and watershed location, were also weighed. Generally, larger sites, which would be more likely to maintain stable and diverse natural communities, were chosen over smaller sites. However, for certain life science features only small remnant sites are left, especially in the extreme southern part of Ontario (Site Region 7). In such cases, sites that were close together or linked were ranked higher than widely spaced, small areas. Recent work on island biogeography (Diamond 1975) suggests that species extinctions are less likely to occur in larger sites, linked sites or closely spaced sites than in small, isolated sites. Headwater areas and watershed units where some degree of control over inputs would be possible were given special attention.

(e) Special Features - Allowance was also made for special features such as the presence of rare and endangered species, species of phytogeographical interest (significant species), nesting sites for colonial birds such as heronries, and concentrations of breeding and/or migratory waterfowl. The special features criterion was of secondary importance; it was applied only after representation, diversity, condition and ecological considerations had been assessed. Because detailed and complete biological data was lacking for most sites, caution was exercised in comparing the special features of sites with different levels of background data.

(iii) Field Reconnaissance

A total of three and one-half days, July 29 - August 1, 1980, were spent field checking Site District 6-2. The study team consisted of the author and field assistant, P. Terpstra. The area was travelled by automobile and to a lesser extent by foot. To gain a better understanding and appreciation of the general nature and features of the landscape, a preselected route was travelled on the first day through the site district. The remaining two and one-half days consisted of field checking twenty-seven preselected sites. Each site was investigated for one-half to two hours and included an examination of as many different biological communities and site types as time permitted. General topography, soil types, site drainage, vegetation communities, fauna, condition, surrounding landscape features and land use were noted and recorded.

(iv) Site Evaluation

Following field reconnaissance, each site was reviewed, compared and evaluated within its vegetation-landform unit. Poor quality sites were deleted and the remainder were denoted as significant sites (see Glossary). Following further evaluation, candidate nature reserves were selected from the list of significant sites, excluding those sites mapped as Indian Reserves or Department of National Defense lands. Representation, diversity, condition, and ecological considerations were weighed equally in the evaluation procedure while special features were considered less important. A further analysis of candidate nature reserves led to the identification of the best quality sites to represent each dominant vegetation-landform type. Environmental Data Cards were prepared for each significant site and one page nature reserve check-sheets for each candidate nature reserve (Appendix A). Location and boundaries of each significant site were mapped on 1:50,000 topographic maps and all data were placed on file at the Ministry of Natural Resources, Central Region, Parks and Recreation Section.

The preparation of this report involved the compilation of existing data on the natural areas of Site District 6-2. This data included available information on Environmentally Sensitive Areas in the site district, airphoto review, topographic map review, and some contact with individuals knowledgeable about the site district. A limited amount of time was devoted to field checking of sites in order to assess their current condition and the degree of representation offered by each.

The emphasis of this study was directed towards vegetation-landform features. Therefore, areas of high quality wildlife and fisheries habitat, and special sites such as concentrations of rare or endangered flora and fauna, are generally missing unless otherwise a component of a representative vegetation-landform feature.

3. CANDIDATE NATURE RESERVES

The preliminary overview process identified five dominant vegetation-landform features remaining in a relatively natural, undisturbed state. The five types include shoreline cliffs, shoreline beach ridges and sand dunes, upland woodlots, river valley systems and wetlands.

Table 3 summarizes the natural features analysis and nature reserve selection procedure according to physiographic region and vegetation-landform feature. The results of the analysis are presented in the final column - Candidate Nature Reserve Sites Selected to Represent the Missing Features. Of the twenty-seven areas field checked, eighteen were chosen as significant sites and of these, seven as candidate nature reserves (Table 3). The locations of the seven candidate nature reserves are shown in Figure 2.

Of the seven candidate nature reserve sites selected, five offer the best representation of the dominant features. Greenock Swamp is the largest wetland in the site district and one of the largest in southern Ontario. It encompasses a variety of wetland vegetation types and provides regionally significant waterfowl breeding and migratory habitat. The highest and most continuous stretch of undisturbed shoreline bluff is the 18 Mile South Shorecliff. Scott Point represents the largest, least disturbed shoreline area of storm beaches and terraces, with a moderately high diversity of vegetation types, including boulder beach and fen. The best river valley system is the Bayfield River; it is the least disturbed and harbours a range of vegetation types including floodplain, riverbank and valley wall communities. Finally, Bayfield North offers the least disturbed example of upland woodlots, containing both upland and lowland types.

The other two candidate nature reserves selected are Glammis Bog and Sauble Falls North. Glammis Bog offers excellent kettle-kame representation, an uncommon feature in Site District 6-2 and includes a good example of bog succession and unusual bog species. Despite its disturbed nature, Sauble Falls North provides a good example of beach ridge and swale pattern with some low sand dune areas.

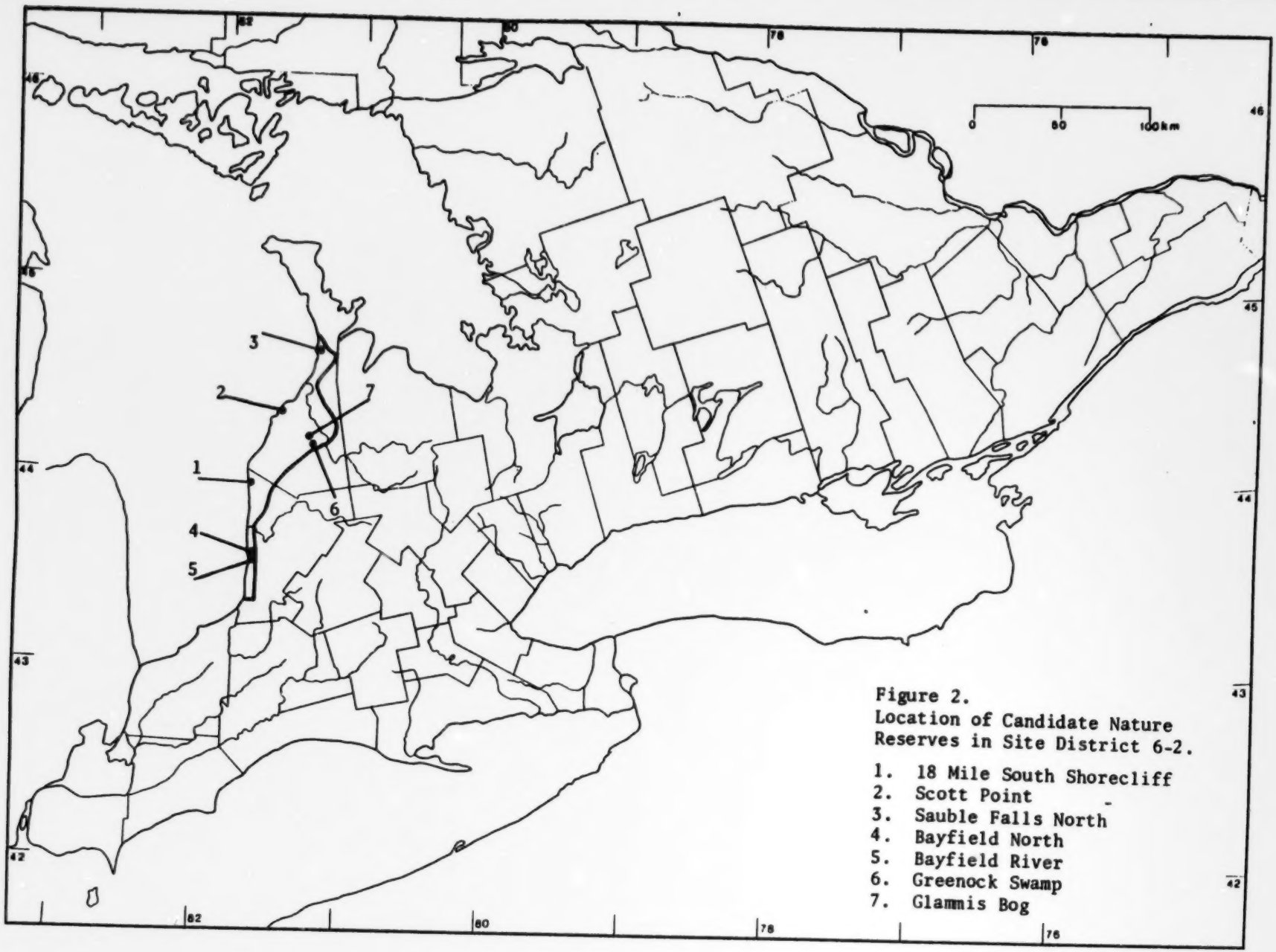

Figure 2.
Location of Candidate Nature Reserves in Site District 6-2.

1. 18 Mile South Shorecliff
2. Scott Point
3. Sauble Falls North
4. Bayfield North
5. Bayfield River
6. Greenock Swamp
7. Glammis Bog

TABLE 3: LIST OF SIGNIFICANT SITES AND CANDIDATE NATURE RESERVES IN SITE DISTRICT 6-2

VEGETATION-LANDFORM FEATURE AND PHYSIOGRAPHIC REGION	SIGNIFICANT SITE	CANDIDATE NATURE RESERVE
SHORELINE		
Bluff		
Huron Fringe - Shorecliff	18 Mile South Shorecliff (41A/4 412730)	18 Mile Shorecliff (41A/4 412730)
Beach Ridges and Dunes		
Huron Fringe - sand plain with beaches, dunes	Saugeen River east of Southampton (41A/6 740265) Saugeen Indian Reserve (41A/11 740320) Sauble Falls North (41A/11 790480) Point Clark (41A/4 405810) Scott Point (41A/5 570115) MacGregor Point Provincial Park (41A/6 620170)	Scott Point (41A/5 570115) Sauble Falls North (41A/11 790480)
UPLANDS		
Huron Slope - sand plain/bevelled till plain	Bayfield North (40P/12 440270)	Bayfield North (40P/12 440270)
- till plain	Gresham Woodlot (41A/6 710040)	
- sand plain	Bayfield South (40P/5 450150)	
RIVER VALLEY SYSTEMS		
Huron Slope - bevelled till plain	Lucknow River (40P/13 495560)	
- sand plain/bevelled till plain/till moraine	Bayfield River (40P/12 480230)	Bayfield River (40P/12 480230)
- till plain/sand plain	Saugeen River (41A/6 750110)	

TABLE 3: LIST OF SIGNIFICANT SITES AND CANDIDATE NATURE RESERVES IN SITE DISTRICT 6-2

VEGETATION-LANDFORM FEATURE AND PHYSIOGRAPHIC REGION	SIGNIFICANT SITE	CANDIDATE NATURE RESERVE
WETLANDS		
Horseshoe Moraines - muck	Greenock Swamp (41A/3 700890)	Greenock Swamp (41A/3 700890)
- kame moraine	Glammis Bog (41A/3 690975)	Glammis Bog (41A/3 690975)
Saugeen Clay Plain - sand	North Saugeen River Swamp (41A/3 840955)	
- sand/drumlinized till plain	Dunkeld Saugeen Oxbow (41A/3 835930)	
Huron Fringe - limestone plain	Chief's Point Indian Reserve (41A/11 770480)	

4. CONCLUSIONS

A total of seven candidate nature reserves were selected to represent the typical vegetation-landform features of Site District 6-2. They include one shoreline cliff - 18 Mile South Shorecliff, two beach ridge and sand dunes areas - Scott Point and Sauble Falls North, one upland woodlot - Bayfield North, one river valley system - Bayfield River and two wetlands - Greenock Swamp and Glammis Bog. Priority should be given to 18 Mile South Shorecliff, Scott Point, Bayfield North, Bayfield River and Greenock Swamp because of their outstanding contribution.

These candidate nature reserves require further research to determine the feasibility of their protection over the long term. Land-use designation of the site and surrounding land, and other environmental factors (i.e., size of watershed, etc.) affecting present and future stability should be assessed. Candidate nature reserves which can be feasibly managed in a stable condition over the long term, should either be directly acquired by public agencies, such as the Ministry of Natural Resources, Conservation Authorities, the Nature Conservancy and/or individual naturalist clubs. Alternatively, the present owners should be encouraged to work cooperatively to protect and manage the area through private land agreements. The significant sites also are valuable ecological areas which should receive protection through district and municipal land-use planning.

GLOSSARY

Areas of Natural and Scientific Interest (ANSI): ANSI s are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage, scientific study or education. ANSI s may vary in level of significance. The most significant of these, Candidate Nature Reserves in the site district reports, may contribute to the achievement of the Ministry's protection objective. Those which do not contribute to the provincial protection objective are referred to as Significant Sites in the Site District Report.

Candidate Nature Reserve: Candidate nature reserves are sites selected on a systematic basis to represent the natural features and landscapes of Ontario and complement other protected zones in the provincial park system. Candidate nature reserves contain the best examples of the landform and vegetation features of each site district; features that may be of widespread or restricted occurrence within the site district. They are selected after comparison and evaluation of significant sites sharing similar features. Each candidate nature reserve possesses sufficient ecological integrity, buffering capacity and size that protection appears to be a viable management strategy.

Physiographic Region: Chapman and Putnam (1973) described and mapped fifty-two minor physiographic regions within southern Ontario. These physiographic regions are areas with recognizable local landform patterns. Map 1 outlines the physiographic regions that fall wholly or partially within the site district.

Significant Site: A site of at least regional significance and representative of the landform and vegetation features of the site district. Chosen after reviewing the background information available on sites of biological importance, airphoto analysis and field checking of selected areas. After final evaluation and comparison of similar significant sites, some were chosen as candidate nature reserves. However, all significant sites are recommended for protection through the land-use planning process.

Site District: A subdivision of a site region, with a characteristic pattern of physiographic features (Hills, 1959). Site districts are small scale map units that segregate substantial areas from each other on the basis of broad landform patterns. Refer to Figure 1.

Site Region: An area of land within which the response of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Refer to Figure 1.

APPENDIX A: CANDIDATE NATURE RESERVE CHECK-SHEETS AND ENVIRONMENTAL DATA CARDS FOR SIGNIFICANT SITES IN SITE DISTRICT 6-2

	Page Number
SHORELINE	
CLIFF	
18 Mile South Shorecliff (41A/4 412730) - CNR[1]	21
BEACH RIDGES AND SAND DUNES	
Scott Point (41A/5 570115) - CNR	25
Sauble Falls North (41A/11 790480) - CNR	27
Point Clark (41A/4 405810)	29
MacGregor Point Provincial Park (41A/6 620170)	29
Saugeen River - East of Southampton (41A/6 740265)	30
Saugeen Indian Reserve (41A/11 740320)	30
UPLANDS	
Bayfield North (40P/12 440270) - CNR	31
Bayfield South (40P/5 450150)	33
Gresham Woodlot (41A/6 710040)	33
RIVER VALLEY SYSTEMS	
Bayfield River (40P/12 480230) - CNR	35
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WETLANDS	
Greenock Swamp (41A/3 700890) - CNR	39
Glammis Bog (41A/3 690976) - CNR	43
Chiefs Point Indian Reserve (41A/11 770480)	45
Dunkeld Saugeen Oxbow (41A/3 835930)	46
North Saugeen River Swamp and Oxbow (41A/3 840955)	46

[1] CNR indicates candidate nature reserve

SITE DISTRICT 6-2: SHORELINE - CLIFF

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
18 Mile South Shorecliff	Kincardine	41A/4	412730

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Huron

LAT. 44° 00' N | LONG. 81° 44' W | ALT. MIN. MAX. ca. 600 ft. - 625 ft.

LOCALITY: south of 18 Mile River mouth along Lake Huron, ca. 18 km south of Kincardine

TOWNSHIP	LOTS	CONCESSIONS
Ashfield		

AREA: 74 acres 30 ha

OWNERSHIP:

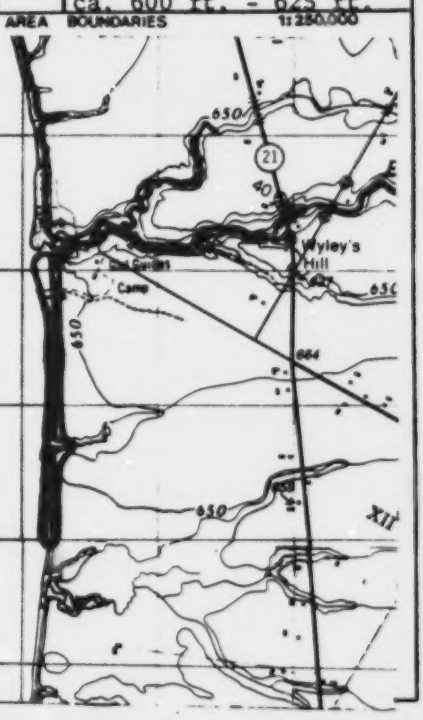
ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L-1	6-2
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Wingham	-

AERIAL PHOTOGRAPHS — BASE MAP: 441813

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	97	4407	1-2

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

18 Mile South Shorecliff is a 20 m high bluff stretching 3 km in length, southward from the mouth of the 18 Mile River. Two additional creeks discharge their waters along this section. The top of the bluff is agricultural land. Trembling aspen, balsam poplar and cedar dominate the steep slope. Some of the sand beach below is undisturbed and vegetated with *Ammophila* sp. (beach grass).

This area was selected as a candidate nature reserve because it represents the only substantially continuous and relatively undisturbed shoreline cliff section along Lake Huron in Site District 6-2. The majority of the shoreline in the site district is used for cottaging and commercial resort.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Hanna, 1980. Airphoto Interpretation

EVALUATION AND PRIORITIES

18 Mile South Shorecliff represents the only substantially continuous and relatively undisturbed shoreline cliff along Lake Huron in Site District 6-2.

DATE COMPILED	COMPILER
December 3, 1980	R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 6-2: SHORELINE - Cliff

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	18 Mile South Shorecliff	41A/4	412730

BRIEF DESCRIPTION

Twenty m high shoreline cliff along Lake Huron, south of 18 Mile River mouth, stretching 3 km in length. Top of bluff is agricultural land. Slope is young trembling aspen-balsam poplar-cedar. Sand beach (*Ammophila* sp.). Only undeveloped section of shoreline cliff along Lake Huron in Site District 6-2. A candidate nature reserve.

SOURCES

Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 29, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

1981

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Scott Point	Tiverton	41A/5	570115

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Bruce	44° 21'N	81° 32'W	ca. 600 ft.-625 ft.

LOCALITY: 10 km southwest of Port Elgin along Lake Huron shoreline

TOWNSHIP	LOTS	CONCESSIONS
Bruce		

AREA: 794 acres 320 ha

OWNERSHIP:

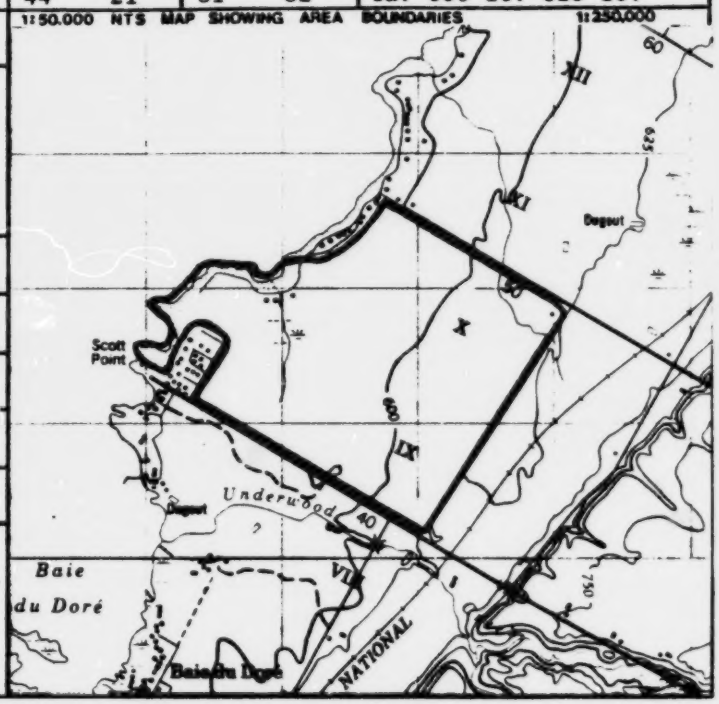
ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L-1	6-2
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS — BASE MAP: 443813

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	95	4415	120-122
1966	94	4416	1-4

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

Characterized by sand and boulder beach, raised storm beaches and a Lake Nipissing terrace, Scott Point is situated on Lake Huron, 10 km southwest of Port Elgin and 3 km northeast of Douglas Point. Shoreline cottage development is present on both sides and some within the area itself. The wet sand and boulder beaches have several long narrow bays and are vegetated with shoreline fen species such as *Cladium mariscoides* (twig-rush), *Lobelia kalmii* (brook lobelia), *Lysimachia quadriflora* (prairie loosestrife) and *Potentilla fruticosa* (shrubby cinquefoil). Cedar, white birch, trembling aspen, balsam fir and sugar maple dominate the beach ridges and terrace.

Based on its relatively large and undisturbed shoreline and backshore area and moderately high diversity of typical vegetation types, ranging from shoreline, beach ridge to terrace, Scott Point offers excellent nature reserve potential.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Hanna, 1980. Airphoto Interpretation; South Bruce E.S.A., 1980.

EVALUATION AND PRIORITIES

Scott Point, one of the largest relatively undisturbed shoreline and backshore area in Site District 6-2, contains a good diversity of vegetative types.

DATE COMPILED	COMPILER
December 3, 1980	R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 6-2: SHORELINE - Beach Ridges and Sand Dunes

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Sauble Falls North	Wiarton	41A/11	790480

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Bruce

LOCALITY: North of Sauble Falls

TOWNSHIP / LOTS / CONCESSIONS: Amabel

AREA: 500 acres 124 ha

OWNERSHIP:

ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L-1	6-2
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Sauble Valley

AERIAL PHOTOGRAPHS — BASE MAP: 446812

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	91	4428	92-93
1966	91	4429	68-70
1966	88	4420	190-192

LAT.	LONG.	ALT. MIN.	MAX.
44 °41 'N	81 ° 16 'W	ca. 600 ft.	625 ft.

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000

PHYSICAL AND BIOLOGICAL FEATURES

Sauble Falls North is characterized by a beach ridge and swale-sand dune complex. The site is located north of Sauble Falls. The northeastern portion is dissected by Highway 6. The adjoining shoreline outside of the site is either intensively developed for recreational uses or a part of Chief's Point Indian Reserve. The majority of the high sand dune areas are mined or reforested. The site is dissected by two concession roads and contains numerous campsite areas.

Despite its somewhat disturbed nature, Sauble Falls North still offers good representation of a combination of beach ridge and swale pattern and some low sand dunes. Most of the sand dune areas in Site District 6-2 are highly developed.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Cuddy, 1976; Hanna, 1980. Airphoto Interpretation.

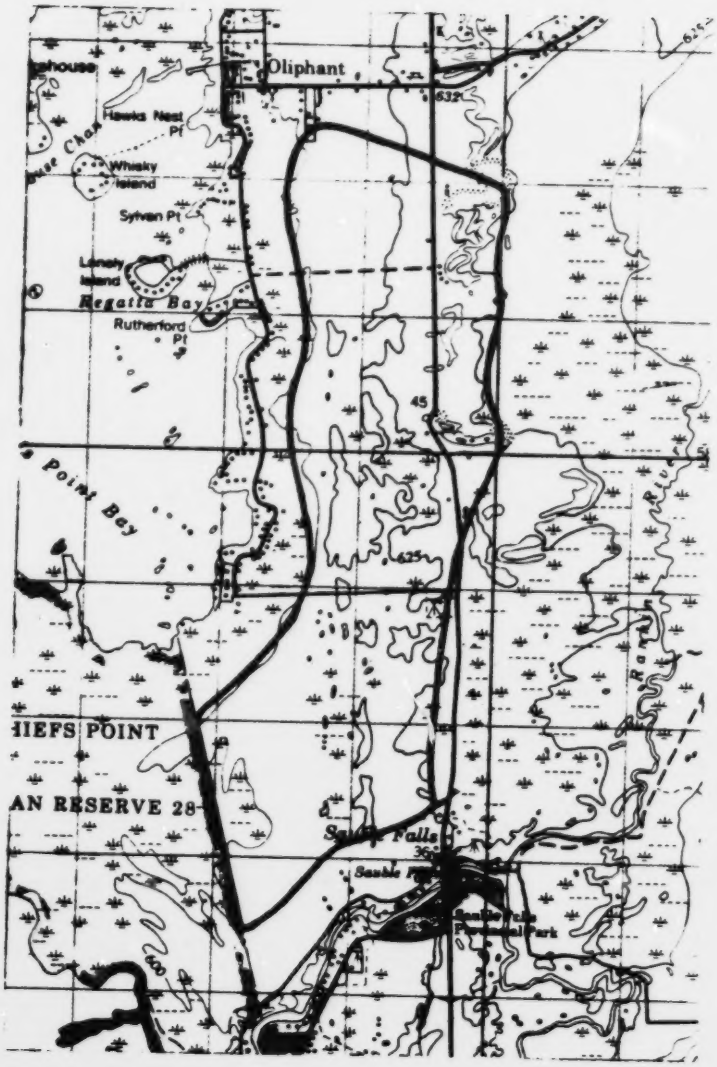
EVALUATION AND PRIORITIES

Although relatively disturbed, Sauble Falls North contains a good example of beach ridge and swale pattern and low sand dunes in Site District 6-2.

DATE COMPILED	COMPILER
December 3, 1980	R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

Sauble Falls North 41A/11 790480



EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Point Clark	41A/4	405810

BRIEF DESCRIPTION

Series of Lake Nipissing beach ridges approximately 80 ha. Surrounded by intense cottage development on south and north sides and small strip along shoreline. Zoned green space. Northeast of Point Clark on Lake Huron. Consists of sugar maple-white birch-white ash-black cherry on ridges and cedar-hemlock-black ash in swales. Motorbike trails and local cutting.

SOURCES

Hanna, 1980. Airphoto Interpretation; South Bruce ESA, 1980; Wingham Sensitive Areas; IBP, 1972.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 29, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Scott Point	41A/5	570115

BRIEF DESCRIPTION

320 h of sand and boulder beach, raised storm beaches, and Lake Nipissing terrace on Lake Huron. Cottage development to SW & NE. Future cottage development imminent within area. 10 km southwest of Port Elgin. Only undeveloped Huron Fringe shoreline in 6-2. Wet boulder and sand beach has many bays. Vegetation consists of wet meadow *Cladium mariscoides*, *Lobelia kalmii*, *Lysimachia* sp, *Potentilla fructicosa*. Beach ridges are mesic to wet mesic, cedar-white birch-trembling aspen-balsam fir-ground hemlock. A candidate nature reserve.

SOURCES

South Bruce ESA, 1980; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	MacGregor Point Provincial Park	41A/6	620170

BRIEF DESCRIPTION

About 400 ha of the park is zoned Natural Environment. The most interesting and significant features occur along Lake Huron-sand dunes and just back from the lakeshore a series of small wetlands containing a variety of vegetation-ponds, marly fens, marshes, shrub carr and swamp. Park development encroaches on these wetlands and a road drainage ditch system may be having a serious impact. Further inland are ridges with balsam-fir-cedar-white birch-trembling aspen and lowlying sites with cedar swamp, ash-silver maple swamp and ash-balsam poplar-dogwood wet mesic lowland.

SOURCES

IBP,1971; South Bruce ESA, 1980; M.N.R. Master Plan, 1980; Cuddy, 1973; Hanna, 1980, Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 31, 1980			Hanna, 1980 Lindsay, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Saugeen River - east of Southhampton	41A/6 Also on 41A/11	740265

BRIEF DESCRIPTION

160 h of undulating sand dunes and flat to gently rolling knolls with trembling aspen and mature sugar maple-beech forest. Several regionally rare plants. 2 km east of Southhampton on west side of river.

SOURCES

South Bruce E.S.A., 1980; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Saugeen Indian Reserve	41A/11	740320

BRIEF DESCRIPTION

Lake Nipissing beach ridges, bluffs and dunes. This portion of the Indian Reserve excludes the main road and settlement area. Dunes are mainly reforested with pine. The ridge and swale pattern is characterized by balsam fir-trembling aspen-spruce; cedar-balsam fir-trembling aspen and balsam fir-trembling aspen-white birch. The bluff is young sugar maple-ash. Several roads and garbage dumps. Shoreline developed.

SOURCES

Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
August 1, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Sauble Falls North	41A/11	790480

BRIEF DESCRIPTION

Beach ridges, swale and dune complex between Sauble Falls and Oliphant. High dunes east of highway are disturbed by sand pits; strip along west side of highway is plantation and campsites. Shoreline contains cottage development (not included in this site). Site dissected east/west by two concession roads. A candidate nature reserve.

SOURCES

Hanna, 1980. Airphoto Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra August 1, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

SITE DISTRICT 6-2: UPLANDS

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Bayfield North	Goderich	40P/12	440270

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Huron

LOCALITY: 3 km NE of Bayfield

TOWNSHIP / LOTS / CONCESSIONS: Goderich

AREA: 690 acres 275 ha

OWNERSHIP:

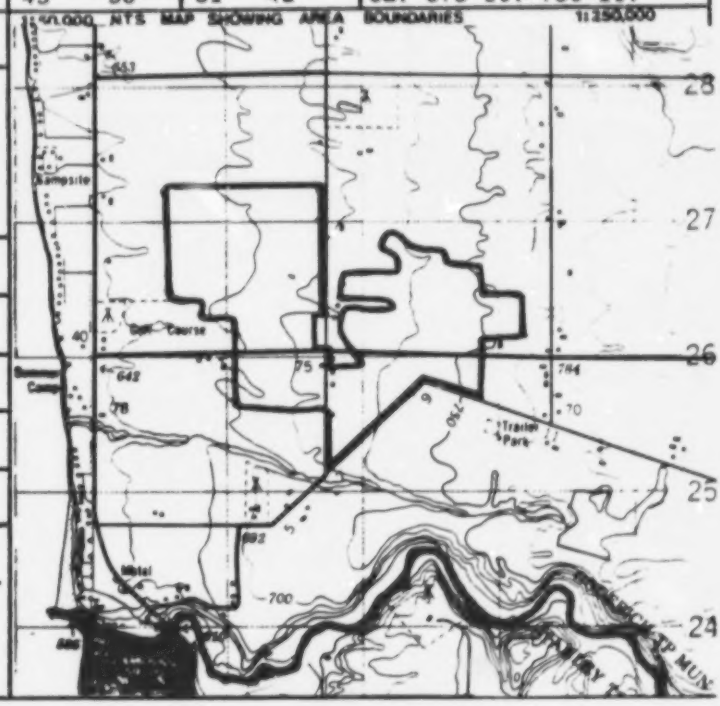
ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	6-2
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Wingham	Ausable-Bayfield

AERIAL PHOTOGRAPHS — BASE MAP: 435813

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	77	4324	3-4
1966	77	4325	95-96

LAT.	LONG.	ALT. MIN. MAX.
43 ° 36 'N	81 ° 42 'W	ca. 675 ft.-750 ft.



PHYSICAL AND BIOLOGICAL FEATURES

Consisting of a series of adjoining woodlots dissected by several concession roads, Bayfield North lies near Lake Huron 3 km northeast of Bayfield. The upland portions are dominated by young to intermediate aged sugar maple - beech - ash types; some areas are managed by the M.N.R. Lowlying areas contain cedar - red maple - basswood - dogwood.

Bayfield North is generally representative of the upland woodlot types found on the various landforms - sandplain, bevelled till plain and till plain - of the Huron Slope physiographic region in Site District 6-2. It is also a relatively large example and one of the least disturbed.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Hanna, 1980. Airphoto Interpretation.

EVALUATION AND PRIORITIES

Bayfield North is one of the least disturbed and relatively large examples of upland woodlot in Site District 6-2.

DATE COMPILED	COMPILER
December 3, 1980	R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

	X	Bayfield North	40P/12	440270

Series of woodlots 3 km northeast of Bayfield. Dissected by several concession roads. Some of the maple woods are managed by the M.N.R. Upland forest of young to intermediate aged maple-beech-ash (mesic to wet mesic). Few lowlying areas with cedar - red maple - dogwood - basswood. A candidate nature reserve.

Hanna, 1980. Airphoto Interpretation.

Hanna/Terpstra July 31, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

	X	Bayfield South	40P/5 Also on 40P/12	450150

Series of upland woodlots running parallel to Lake Huron approximately 6 km south of Bayfield. Dissected by several concession roads. Woodlots vary from young sugar maple with ash to mature ash-beech with hemlock-sugar maple. One woodlot contains an actively used cabin.

Hanna, 1980. Airphoto Interpretation.

Hanna/Terpstra July 29, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

	X	Gresham Woodlot	41A/6	710040

Series of upland woodlots 1 km east of Gresham, dissected by several concession roads. Stands of young sugar maple ash, sugar maple-ash-beech and lowland ash-silver maple. Intermediate to young. Surrounded by agricultural fields.

Hanna, 1980. Airphoto Interpretation.

Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

SITE DISTRICT 6-2: RIVER VALLEY SYSTEMS

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Bayfield River	Goderich	40P/12	480230

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Huron

LAT.: 43 °34 'N | LONG.: 81 °40 'W | ALT. MIN. MAX.: ca. 625 ft.-850 ft.

LOCATION: 10 Km section along Bayfield River upstream from Bayfield

TOWNSHIP: Stanley/Goderich | LOTS | CONCESSIONS

AREA: 2100 acres 850 ha

OWNERSHIP:

ADMINISTRATION:

FOREST REGION AND DISTRICT:

SITE REGION AND DISTRICT: 6-2 and 6-1

MNR REGION AND DISTRICT: SW-Wingham

CONSERVATION AUTHORITY: Ausable-Bayfield

AERIAL PHOTOGRAPHS — BASE MAP: 435815

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	287	4338	152-154
1978	267	4339	203-208
1978	244	4340	76-80

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000

PHYSICAL AND BIOLOGICAL FEATURES

This site follows the deeply incised, winding valley of the Bayfield River for 10 km upstream of Bayfield. Along this section, the valley has a complex morphology with abandoned meander channels, oxbows and various floodplain terraces. The vegetation types represented include riverbank thickets, and floodplain wetlands (open forb-sedge meadows, willow thickets, cedar swamp), and slope and valley rim upland forest (maple-beech). Some of the disturbances to the site are resource extraction, dumping and past and present logging. Special features include Carolinian species representation (eg. sycamore), a deer yard, and a migratory trout and salmon run.

The west part of the Bayfield River lies in Site District 6-2, while the eastern half is in Site District 6-1. The Bayfield River was identified as the least disturbed river valley system in Site District 6-2, and a site with a good diversity of valley rim, slope, open and forested floodplain and riverbank vegetation. The Bayfield River and Eramosa River Valley (40P/9 685345) are the two best examples of river valley systems in Site District 6-1. The valley slope and rim forests are of particular note, as they represent upland forest vegetation types, a feature that is scarce in Site District 6-1.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

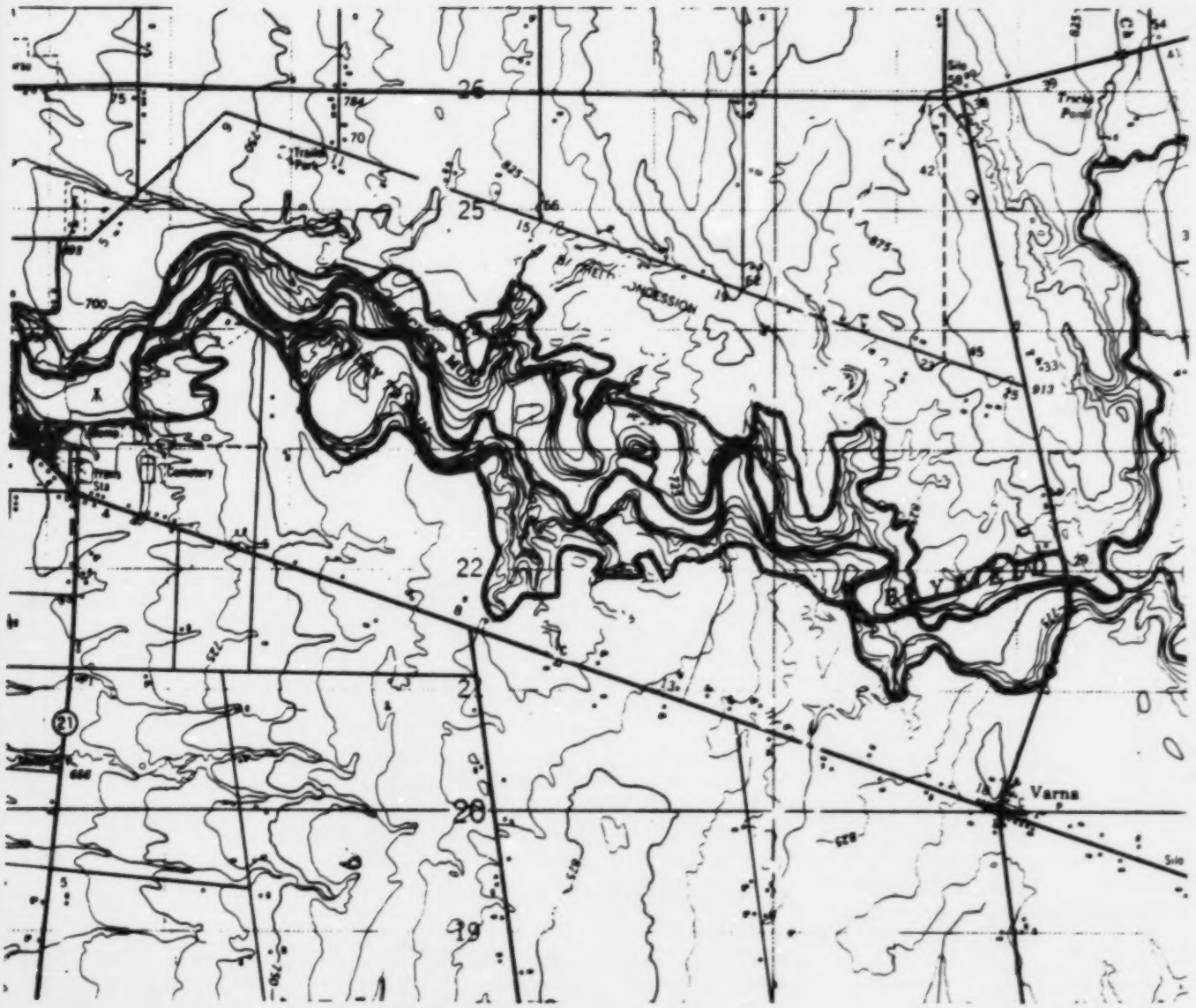
Chapman and Putnam, 1973; Creighton, 1982; Hanna, 1980; Klinkenberg and Rhodes, 1980; MNR, 1976.

EVALUATION AND PRIORITIES One of the best river valley sites in both Site District 6-1 and 6-2. Encompasses a good diversity of valley rim, slope and floodplain sites and supports high quality forests.

DATE COMPILED	COMPILER
Jan. 1981 Revised Fall 1982	R. Hanna and R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario. M7A 1W3

Bayfield River 40P/12 480230



EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Bayfield River	40P/12	480230

BRIEF DESCRIPTION

Deeply incised river valley complex commencing 2 km east of the mouth of the Bayfield River on Lake Huron and extending approximately 6 km upstream. Riverbank cedar-basswood with dense herb layer. Openings with grape, dogwood, *Impatiens* sp., ninebark. Sycamore occurs in a few floodplain locations. Valley walls characterized by sugar maple-ash-hemlock-cedar. Some camping parks, old fields and gravel pits in the area. A candidate nature reserve.

SOURCES

IBP, 1971; Cuddy, 1976; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 29, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Lucknow River (Nine Mile River)	40P/13	495560

BRIEF DESCRIPTION

River valley and upland woods 2 km west of Dungannon. Dissected by one concession road. Riverbank cedar-basswood-red maple-ash-willow. Upland young to semi-mature (some regeneration areas) forest of ash-sugar maple-black cherry-basswood. Small portion selectively cut. Wet mesic upland white birch-balsam poplar-ash-basswood-sugar maple forest along a creek. Area of dense regenerating cedar.

SOURCES

Cuddy, 1976; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Saugeen River	41A/6	750110

BRIEF DESCRIPTION

Saugeen River valley system from north of Paisley to south of Port Elgin (20 km in length). Consists of forested terraces, floodplain, islands and agricultural land. Alluvial islands contain butternut stands, upland scrub and meadow. Important part of the Saugeen River linkage system for movement of faunal species.

SOURCES

South Bruce ESA, 1980; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
-			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
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ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK TORONTO M7A 1W3

1981

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Greenock Swamp	Walkerton	41A/3	700890

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Bruce	44 ° 09 'N	81 ° 22 'W	ca.900 ft. - 925 ft.

LOCALITY: 15 km west of Walkerton, along Teeswater River system

TOWNSHIP / LOTS / CONCESSIONS: Kincardine

AREA: ca. 20,000 acres ca. 8000 ha

OWNERSHIP:

ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L-1	6-2 & 6-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-O.S. & Wingham	Saugeen Valley

AERIAL PHOTOGRAPHS — BASE MAP: 441812/442812

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	221	4403	33-34;36-40
1978	272	4404	45-54
1978	272	4405	113-121

PHYSICAL AND BIOLOGICAL FEATURES

Greenock Swamp is one of the largest wetlands in southern Ontario. In addition to silver maple swamp, cedar swamp, thicket swamp and marsh, this site offers good representation of fen and bog communities (at McGlinn Lake and Harrison Bog centered at UTM 705766 and 710756), and limited representation of upland coniferous and deciduous forest. Vegetation types reported include pure white pine stands, oak stands, sugar maple-beech, hemlock stands, dead elm-willow thickets, cattail-rush marsh and fen with labrador tea and pitcher plant.

Disturbances to the site include logging, fire, grazing, dumping, drainage ditches, road construction and introduction of non-native species. Some portions are currently for sale, while sections of the site are maintained by the conservation authority as a "nature preserve". The road widening to the south of the site which was in progress during field work at this site may have adverse impacts on the Harrison Bog.

The Greenock Swamp is a valuable water retention and groundwater recharge area and is a headwater area for several streams feeding into the Teeswater River. Its large size provides buffer against impact from adjacent land use practices and makes it one of the largest remaining forests in southwestern Ontario. In addition to its large size and continuity, the special features of this site include an active deer yard, its

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Hanna, 1980; Hills and Parker, 1980; Hoffman et al, 1981; IBP, 1971; King, 1975; Klinkenberg, 1980; Klinkenberg and Rhodes, 1980; Lobsinger, 1970; M.N.R., 1976; Saugeen Valley C.A., 1979.

EVALUATION AND PRIORITIES

One of the best swamp forests and associated wetlands in southwestern Ontario and in Site Districts 6-1 and 6-2.

DATE COMPILED	COMPILER
Dec. 1980 Revised Fall 1982	R. Klinkenberg and R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario. M7A 1W3

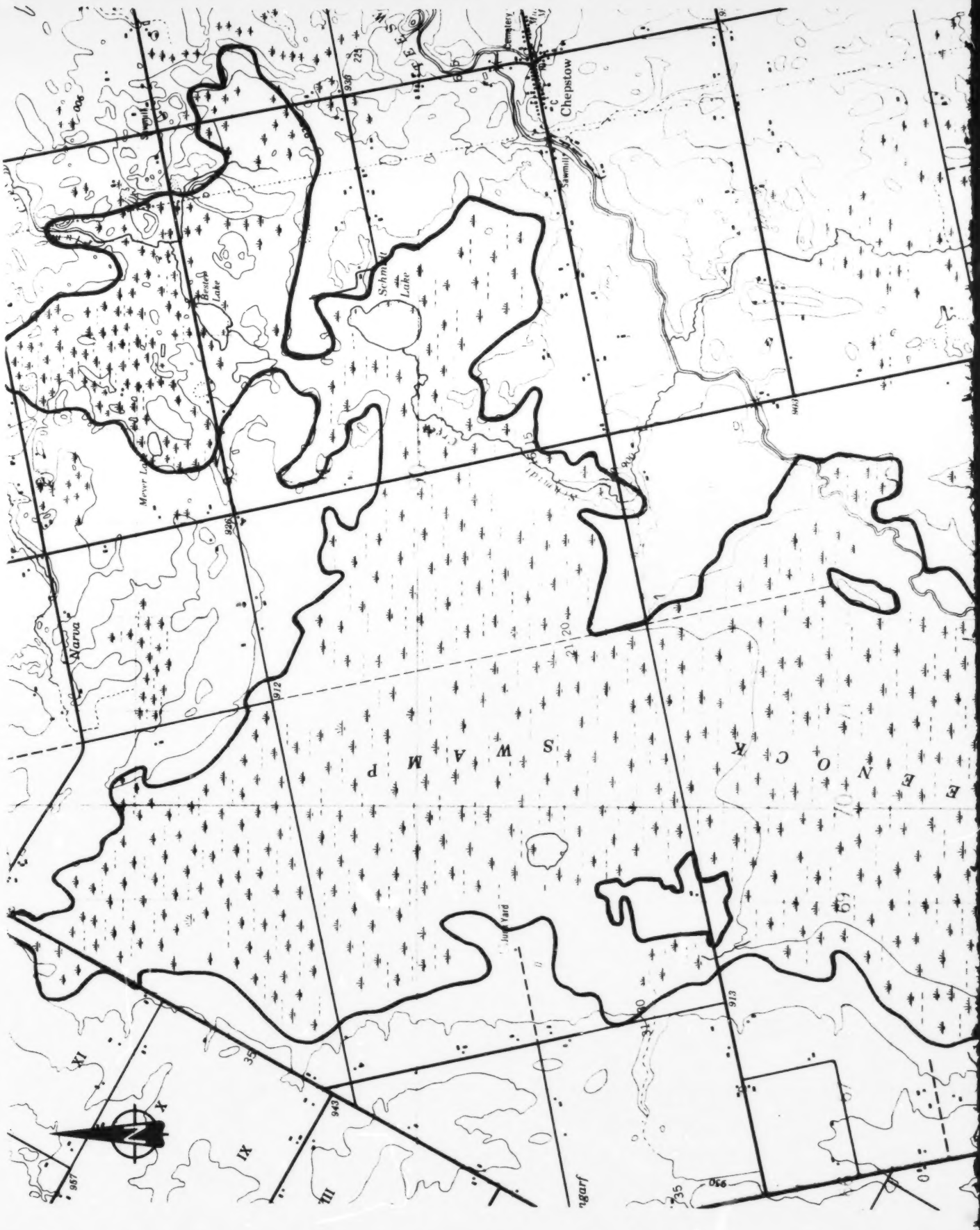
function in providing migratory stopover and nesting habitat for waterfowl, and its support of significant wildlife populations.

Greenock Swamp extends across two site districts (6-2 and 6-1) and was selected as a candidate nature reserve by each site district study. It was considered the best example of swamp in Site District 6-2 and one of the best representations of swamp forest and associated wetlands in the western portion of Site District 6-1. Its large size, hydrological value and diversity of wetland types and wildlife habitats make this one of the best swamp forests and associated wetlands in southwestern Ontario.

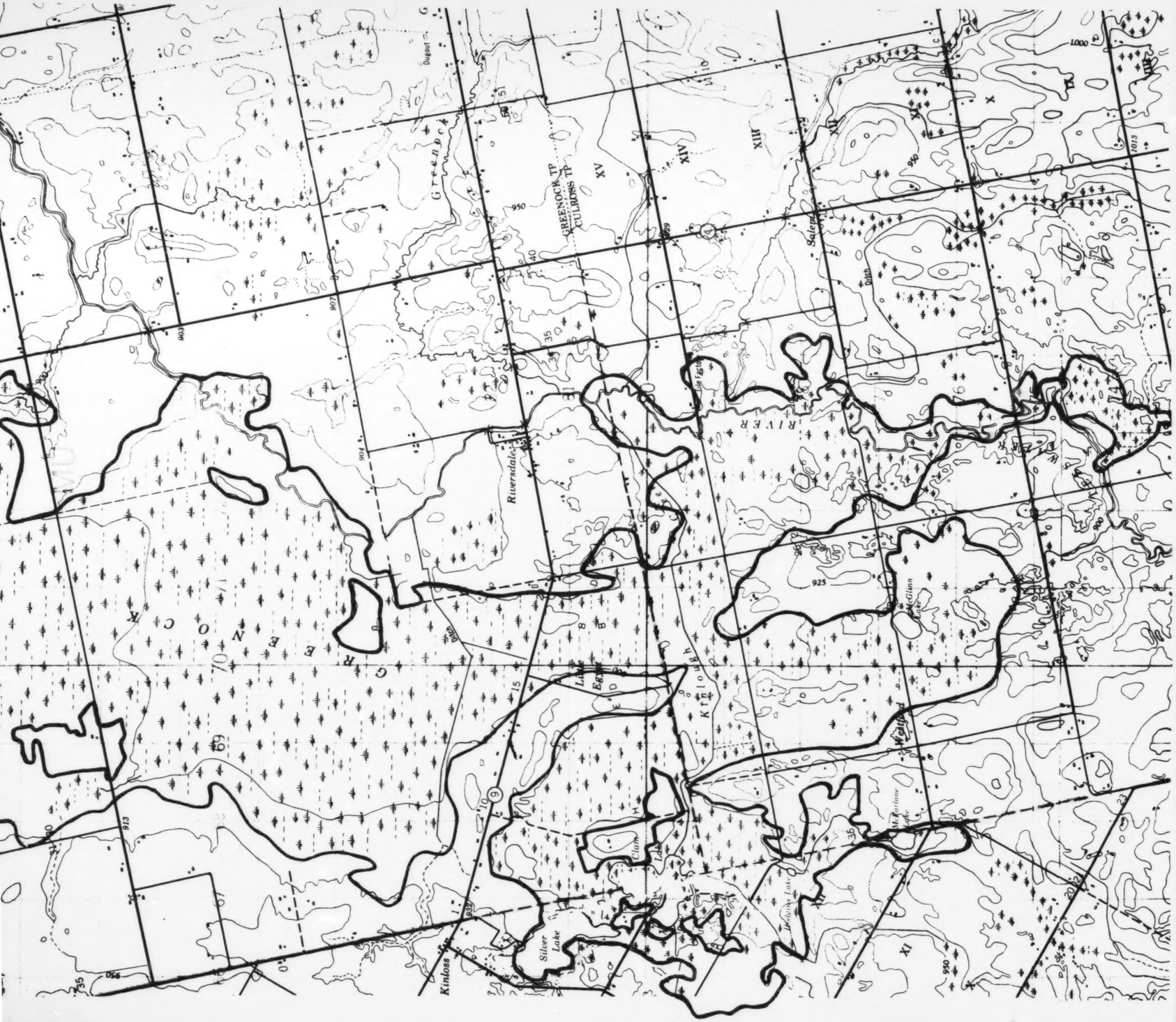
AERIAL PHOTOGRAPHS cont'd

1978	269	4406	110-118
1978	240	4407	117-122
1978	263	4409	27-33
1978	263	4410	134-138
1978	261	4411	24-32
1978	261	4412	121-129
1978	235	4413	21-24; 28-31
1978	235	4414	118-120; 123-126

Greenock Swamp 41A/3 700890


Chepstow
Sawmill
Lake
Beaver Lake
Beaver Dam
Narva
GREENOCK SWAMP
Junction
Sawmill
Lake
Mayer

/3 700890


GREENOCK TP
CULROSS TP
XV
XIV
XIII
XII
XI
X
Salem
Ditch
RIVER
Riversdale
Lake Egmont
Kinloss
Silver Lake
Clam Lake
Indian Lake
McGlynn Lake
Weir
Dugout Creek
GREENOCK
1000
950
925
913
907
903

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Glammis Bog	Walkerton	41A/3	690975

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Bruce

LAT.: 44 ° 14 'N LONG.: 81 °23 'W ALT. MIN. MAX.: ca.

LOCALITY: 3 km north of Glammis, north of Greenock Swamp

TOWNSHIP / LOTS / CONCESSIONS: Bruce

AREA: 105 acres 42 ha

OWNERSHIP:

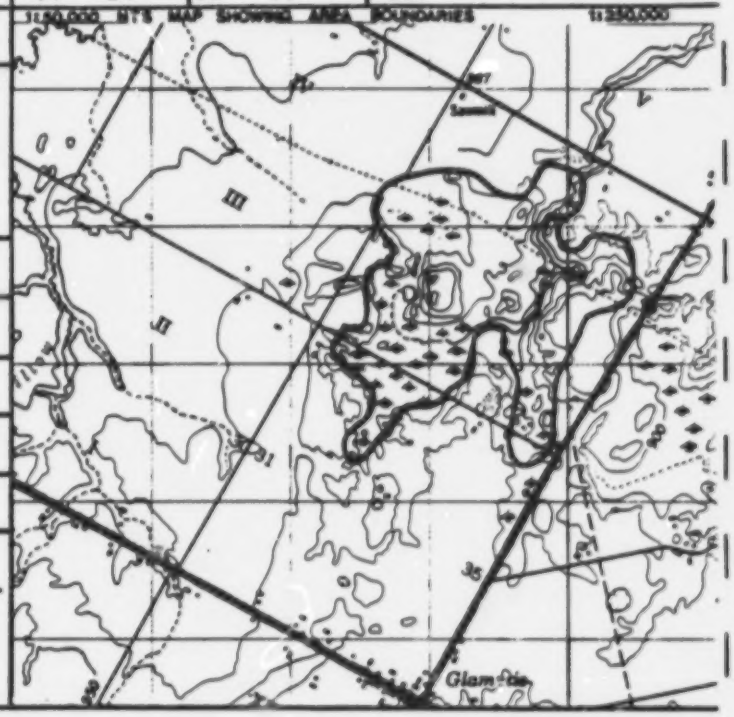
ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L-1	6-2
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS — BASE MAP: 442812

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	100	4410	81-83

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

A kettle-kame complex typifies this site located 3 km north of the town of Glammis and north of Greenock Swamp. The kettle bog displays bog vegetation ranging from open water *Eleocharis* sp. (spike rush) marsh, leatherleaf-*Sphagnum* mat, open treed bog, black spruce-tamarack fringe to silver maple - dogwood lag. Several provincially and regionally rare plants are present such as *Habenaria blephariglottis* (white-fringed orchid), *Calopogon pulchellus* (calopogon), *Pogonia ophioglossoides* (rose pogonia) and *Scirpus hudsonianus* (bulrush). Intermediate aged sugar maple-beech-hemlock dominate the kame hills. A new Hydro corridor passes through the extreme northern section while the extreme southern section is dissected by a concession road.

Kettle-kame complexes are common only in a small section of this site district, however this site offers excellent kettle-kame representation with a high diversity of moderately undisturbed vegetation types. The bog illustrates good bog succession and contains some unusual bog species.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Hanna, 1980. Airphoto Interpretation; IBP, 1971; South Bruce ESA, 1980

EVALUATION AND PRIORITIES

Glammis Bog, a kettle-kame association, is an unusual feature in Site District 6-2. It contains some unusual bog species and illustrates good bog succession.

DATE COMPILED	COMPILER
December 3, 1980	R. Hanna

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Glammis Bog	41A/3	690975

42 h kettle-kame bog north of Glammis. New Hydro corridor bissects NE corner. Bog consists of open water centre with *Eleocharis* sp., surrounded by leatherleaf-*Sphagnum* open treed bog, fringe of tamarack-black spruce and dogwood-silver maple lag. Kame hills are sugar maple-beech-hemlock. Contains several rare and uncommon plant species such as *Habenaria blephariglottis, Calopogon pulchellus, Pogonia ophioglossoides Scirpus rudsonianus.* A candidate nature reserve.

South Bruce ESA, 1980; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY DONE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTA 1983

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Greenock Swamp	41 A/3	700890

One of the largest wetland areas in southern Ontario (8,000 h) located along Teeswater River System 15 km west of Walkerton. Surrounded by agricultural lands and dissected by numerous concession roads. Drainage ditches in southern and northern portions. Mainly young, open to closed silver maple-black ash swamp. Other types include dead elm swamp, cattail-rush marsh, fen, cedar forest, hemlock, sugar maple-beech. Main link between Saugeen River and shoreline - stopover and nesting site for waterfowl. Active logging in some areas. A candidate nature reserve.

South Bruce ESA, 1980; IBP, 1971; Hanna, 1980 . Airphoto Interpretation.

FIELD SURVEY DONE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTA 1983

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Chiefs Point Indian Reserve	41A/11	770480

175 h of lowlying limestone plain 2km west of Sauble Falls along Lake Huron. Shoreline and fen vegetation typical of the Bruce Peninsula. Wet sandy *Cladium mariscoides* swards. Small area of dunes supports open-mixed forest of sugar maple-balsam fir-white cedar. Largest community present is cedar-white birch-balsam fir swamp. Relatively rich and undisturbed when compared to rest of Bruce Peninsula west coast.

IBP, 1971; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY DONE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra August 1, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTA 1983

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Dunkeld Saugeen Oxbow	41A/3	835930

BRIEF DESCRIPTION

Widely meandering river in glacial delta sands with associated gravel terraces, oxbows and drumlinized hill. 8 km north of Walkerton. Floodplain consists of willow-cottonwood - balsam poplar-ash-silver maple-basswood. Sugar maple-ash-hemlock characterize the hill. Some disturbances such as logging and dirt roads have occurred.

SOURCES

South Bruce ESA, 1980; IBP, 1972; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY DATE(S)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
2nd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONT. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	North Saugeen River Swamp and Oxbow	41A/3	840955

BRIEF DESCRIPTION

Floodplain basin cut by Saugeen River. High rising moraine ridge around 3/4 of the swamp. 10 km north of Walkerton. Bottomland types include ash-cedar swamp; trembling aspen-balsam poplar; tamarack-cedar-balsam fir; cattail marsh. Upland sugar maple-hemlock-black cherry on ridge. Area bordered by tree farm. Has received heavy cutting in the past.

SOURCES

South Bruce ESA, 1980; IBP, 1971; Hanna, 1980. Airphoto Interpretation.

FIELD SURVEY DATE(S)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Hanna/Terpstra July 30, 1980			Hanna, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
2nd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONT. M7A 1W3

1981

APPENDIX B: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE

1. SITE DISTRICT 6-2: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE LISTED BY 1:50,000 N:T.S. MAP SHEET

1:50,000 N.T.S. maps included in Site District 6-2, listed from west to east, north to south.

41A/5
41A/4
40P/13
40P/12
40P/5 - no known sites with background information
41A/11
41A/6
41A/3

LEGEND TO ABBREVIATIONS

IBP - Site studies as part of International Biological Program.

API - Site identified by air photo analysis

1. Cuddy, 1976.

ESA - Environmentally Sensitive Area identified in a report for a regional municipality, county or conservation authority.

1. South Bruce County ESA

SA - Ontario Ministry of Natural Resources Sensitive Areas.

INT - Ontario Ministry of Natural Resources Internal Reports.

OTHER - Other sources of information such as published articles, government reports, personal communications, herbarium information, species reports, etc.

41A/5 TIVERTON	UTM GRID REFERENCE	INFORMATION SOURCE
McRae Point	525015	ESA
Inverhuron Provincial Park	530050	IBP,ESA,OTHER
Douglas Point Swamp	555075	ESA
---	560050	API
Scott Point	570115	ESA
MacGregor Point South	595160	ESA
41A/4 KINCARDINE		
South Point Clark Access	400785	SA
Point Clark	405810	IBP,ESA
Lurgan Beach Area	415830	SA
Eighteen Mile River Mouth	420745	SA
Kincardine Wetland Bog	475885	ESA, SA
Lorne Beach South	515970	ESA
South Lorne Shoreline	515985	IBP, SA
North Lorne Shoreline	515990	IBP
40P/13 LUCKNOW		
---	443467	API
---	495560	API
40P/12 GODERICH		
Stinson Estate	430198	API
---	440270	API
---	440350	API
---	450170	API
Bayfield River Valley	455245	IBP
---	470285	API
41A/11 WIARTON		
---	730310	API
---	760320	API
---	760345	API
Chief's Point Indian Reservation	770480	IBP, SA
Oliphant Marsh	770530	IBP, SA
---	780280	API
---	780340	API
---	790405	API
---	790480	API
---	810450	API
---	810490	API
41A/6 CHESLEY		
MacGregor Point South	605150	ESA
MacGregor Point Provincial Park	620170	IBP,ESA,SA,INT
Port Elgin Airfield Upland	655165	ESA
Miramichi Bay	680220	ESA
Chantry Island	680260	ESA
Saugeen Islands	715195	ESA
---	740150	API

	UTM GRID REFERENCE	INFORMATION SOURCE
Saugeen River-East of Southhampton	740265	ESA
Saugeen River-Paisley to Burgoyne	750110	ESA
Teeswater River Uplands	795005	ESA,API
Ellengowan Uplands	830000	ESA
41A/3 WALKERTON		
Glammis Bog	690975	ESA
Greenock Swamp	700890	ESA
---	740930	API
---	750900	API
Teeswater River Uplands	793993	ESA
Ellengowan Uplands	825990	ESA
Dunkeld Oxbow West	835930	IBP,ESA,SA
North Saugeen Swamp and Oxbow	840955	IBP,ESA,SA

P. Terpstra, 1980

2. SITE DISTRICT 6-2: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE LISTED BY PHYSIOGRAPHIC REGION (Chapman and Putnam, 1973)

Physiographic Regions within 6-2:

Huron Slope
Huron Fringe
Saugeen Clay Plain
Horseshoe Moraines
Arran Drumlin Field

HURON SLOPE

41A/4 KINCARDINE	UTM GRID REFERENCE	INFORMATION SOURCE
Eighteen Mile River Mouth	420745	SA
40P/13 LUCKNOW		
---	443467	API
---	495560	API
40P/12 GODERICH		
Stinson Estate	430198	API
---	440270	API
---	440350	API
---	450170	API
Bayfield River Valley	455245	IBP
---	470285	API
41A/6 CHESLEY		
Saugeen Islands	715195	ESA
---	740150	API
Saugeen River-Paisley to Burgoyne	750110	ESA

HURON FRINGE

41A/5 GRAND BEND		
McRae Point	525015	ESA
Inverhuron Provincial Park	530050	IBP,ESA, OTHER
Douglas Point Swamp	555075	ESA
---	560050	API
Scott Point	570115	ESA
MacGregor Point South	595160	ESA
41A/4 KINCARDINE		
South Point Clark Access	400785	SA
Point Clark	405810	IBP,ESA
Lurgan Beach Area	415830	SA

	UTM GRID REFERENCE	INFORMATION SOURCE
Kincardine Wetland Bog	475885	ESA,SA
Lorne Beach South	515970	ESA
South Lorne Shoreline	515985	IBP,SA
North Lorne Shoreline	515990	IBP
41A/11 WIARTON		
---	730310	API
---	760320	API
---	760345	API
Chief's Point Indian Reservation	770480	IBP,SA
Oliphant Marsh	770530	IBP,SA
---	790405	API
---	790480	API
---	810450	API
---	810490	API
41A/6 CHESLEY		
MacGregor Point South	605150	ESA
MacGregor Point Provincial Park	620170	IBP,ESA,SA,INT
Port Elgin Airfield Upland	655165	ESA
Miramichi Bay	680220	ESA
Chantry Island	680260	ESA
Saugeen River-East of Southhampton	740265	ESA
SAUGEEN CLAY PLAIN		
41A/6 CHESLEY		
Saugeen River-Paisley to Burgoyne	750110	ESA
Teeswater River Uplands	795005	ESA
Ellengowan Uplands	830000	ESA
41A/3 WALKERTON		
Dunkeld Oxbow West	835930	IBP,ESA,SA
North Saugeen Swamp and Bow	840955	IBP,ESA,SA
HORSESHOE MORAINES		
41A/3 WALKERTON		
Glammis Bog	690975	ESA
Greenock Swamp	700890	IBP,ESA,SA
Dunkeld Oxbow West	835930	IBP,ESA,SA
ARRAN DRUMLIN FIELD		
41A/11 WIARTON		
---	780280	API
---	780340	API

APPENDIX C: POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST

Areas of Natural and Scientific Interest (ANSI) are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

ANSI s may vary in level of significance. The most significant of these may contribute to the achievement of the Ministry's protection objective.

Where ANSI s occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values.

On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of significant features on their properties and seek the owners' cooperation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the Ministry to acquire this land.

ANSI s encourage the protection of additional areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

SOURCE: Ontario Ministry of Natural Resources, 1983. Backgrounder: Land Use Guidelines. Southwestern Region.

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